THE IMPORTANCE OF EMBEDDING DISCIPLINARY EDUCATION RESEARCH WITHIN THE DISCIPLINE

TRACY CRAIG, 4TU:AMI SUMMER EVENT 2022
TEACHING AND EDUCATIONAL RESEARCH

Educational research

Scholarship of Teaching and Learning

Scholarly teaching
A DISCONNECT

- Educational research
- Scholarly teaching
- Scholarship of Teaching and Learning
EXAMPLES

The preimage concept in linear algebra

Development of critical thinking in mathematics classes

Partially automated individualized assessment

Active learning strategies with positive effects on students’ achievements

Integrated teaching of mathematics and biology: tumour cell aneuploidy

Students’ ability to determine the truth value of mathematical propositions

Interplay between mathematics and engineering subjects

Mathematical modelling and student sense making

Using peer instruction in an analysis course

Students’ understanding of parametric equations and curves
SUPPORTING SCHOLARLY TEACHING

- Reading group
- Bulletin board
- New journal alerts
SCHOLARSHIP OF TEACHING AND LEARNING
SOTL

Educational research

Scholarship of Teaching and Learning

Scholarly teaching
JOURNALS
IJMEST AND TMAIA

- International Journal of Mathematical Education in Science and Technology
  - Research articles and Classroom Notes

- Teaching Mathematics and its Applications
  - Section A and Section B